Application No.: 10/541,752

Amendment

Art Unit: 1656 Attorney Docket No.: 052777

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions of claims in the application.

1. (Currently Amended): An isolated protein complex comprising:

a polyhedral protein of strain H of Bombyx mori cytoplasmic polyhedrosis virus having

strain H of Bombyx mori cytoplasmic polyhedrosis virus an insect virus encapsulated therein;

and

a target protein directly fused to the C-terminus of a restricted region of a capsid protein

VP3 of strain H of Bombyx mori cytoplasmic polyhedrosis virus as an embedding signal for the

polyhedron,

wherein the restricted region of said capsid protein VP3 of strain H of Bombyx mori

cytoplasmic polyhedrosis virus consists of the 41st to 79th amino acid residues of SEO ID NO: 2,

and is a region from the 41st amino acid residue to the 79th amino acid residue

wherein said target protein is heterologous with respect to said restricted region of said

capsid protein VP3 of strain H of Bombyx mori cytoplasmic polyhedrosis virus.

2. (Cancelled).

3. (Previously Presented): The isolated protein complex according to Claim 1, wherein the

polyhedral protein has an effect on improvement in the stability of the target protein, protection

thereof or improvement in the preservation property thereof, or a combination of any of these.

- 3 -

Application No.: 10/541,752

Art Unit: 1656

Amendment
Attorney Docket No.: 052777

4. (Previously Presented): The isolated protein complex according to Claim 1, wherein the target

protein is at least one member selected from the group consisting of fluorescent or light-emitting

proteins, enzymes, antigens, antibodies, cytokines, receptors and bioactive proteins.

5. (Withdrawn/Currently Amended): A process for producing an isolated protein complex,

comprising the steps of:

infecting a cell with a nucleic acid encoding a restricted region of a capsid protein VP3 of

strain H of Bombyx mori cytoplasmic polyhedrosis virus directly fused to a nucleic acid

encoding a gene encoding a target protein, together with a insect virus strain H of Bombyx mori

cytoplasmic polyhedrosis virus that has been integrated with a gene encoding a polyhedral

protein of said capsid protein VP3 of strain H of Bombyx mori cytoplasmic polyhedrosis virus,

and

culturing the cell, whereby a protein complex having a complex structure composed of

the target protein and the polyhedral protein is produced in the cell,

wherein the restricted region of the capsid protein VP3 of strain H of Bombyx mori

cytoplasmic polyhedrosis [[is]] virus consists of either a region from the N-terminus to the 40th

amino acid residue or a region from the 41st amino acid residue to the 79th amino acid residue of

SED ID NO: 2, and

wherein said target protein is heterologous with respect to said restricted region of said

capsid protein VP3 of strain H of Bombyx mori cytoplasmic polyhedrosis virus.

- 4 -

Application No.: 10/541,752 Amendment

Art Unit: 1656 Attorney Docket No.: 052777

6. (Currently Amended): A biosensor comprising:

an isolated protein complex comprising:

a polyhedral protein of strain H of Bombyx mori cytoplasmic polyhedrosis virus having strain H of Bombyx mori cytoplasmic polyhedrosis virus an insect virus encapsulated therein; and

a target protein <u>directly</u> fused to <u>the C-terminus of</u> a restricted region of a capsid protein VP3 of strain H of Bombyx mori cytoplasmic polyhedrosis virus as an embedding signal for <u>the</u> polyhedron,

wherein said isolated protein complex is arranged in dots or lines on a substrate and immobilized thereon,

wherein the restricted region of said capsid protein VP3 of strain H of Bombyx mori cytoplasmic polyhedrosis virus consists of the 41st to 79th amino acid residues of SEQ ID NO: 2, and

wherein said target protein is heterologous with respect to said restricted region of said capsid protein VP3 of strain H of Bombyx mori cytoplasmic polyhedrosis virus.

7. (Previously Presented): A biosensor according to claim 6, wherein said isolated protein complex is packed in such a manner that said isolated protein complex is to be contacted with a substance in a test solution in a recess formed on a substrate.

- 5 -

Application No.: 10/541,752 Amendment

Art Unit: 1656 Attorney Docket No.: 052777

8. (Previously Presented): A biosensor according to claim 6, wherein said isolated protein

complex is packed in a container in such a manner that said isolated protein complex is to be

contacted with a substance in a test solution.

9. (Currently Amended): An isolated protein complex comprising:

a polyhedral protein of strain H of Bombyx mori cytoplasmic polyhedrosis virus having

an insect virus strain H of Bombyx mori cytoplasmic polyhedrosis virus encapsulated therein;

and

a target protein directly fused to the C-terminus of a restricted region of a capsid protein

VP3 of strain H of Bombyx mori cytoplasmic polyhedrosis virus as an embedding signal for the

polyhedron,

wherein the target protein is an enzyme and is heterologous with respect to said restricted

region of said capsid protein VP3 of strain H of Bombyx mori cytoplasmic polyhedrosis virus,

and

wherein the restricted region of said capsid protein VP3 of strain H of Bombyx mori

cytoplasmic polyhedrosis virus consists of the 41st to 79th amino acid residues of SEQ ID NO: 2.

10-13. (Cancelled)

- 6 -